

Transforming Power Systems: Challenges & Solutions

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BOUNDLESS ENERGY™



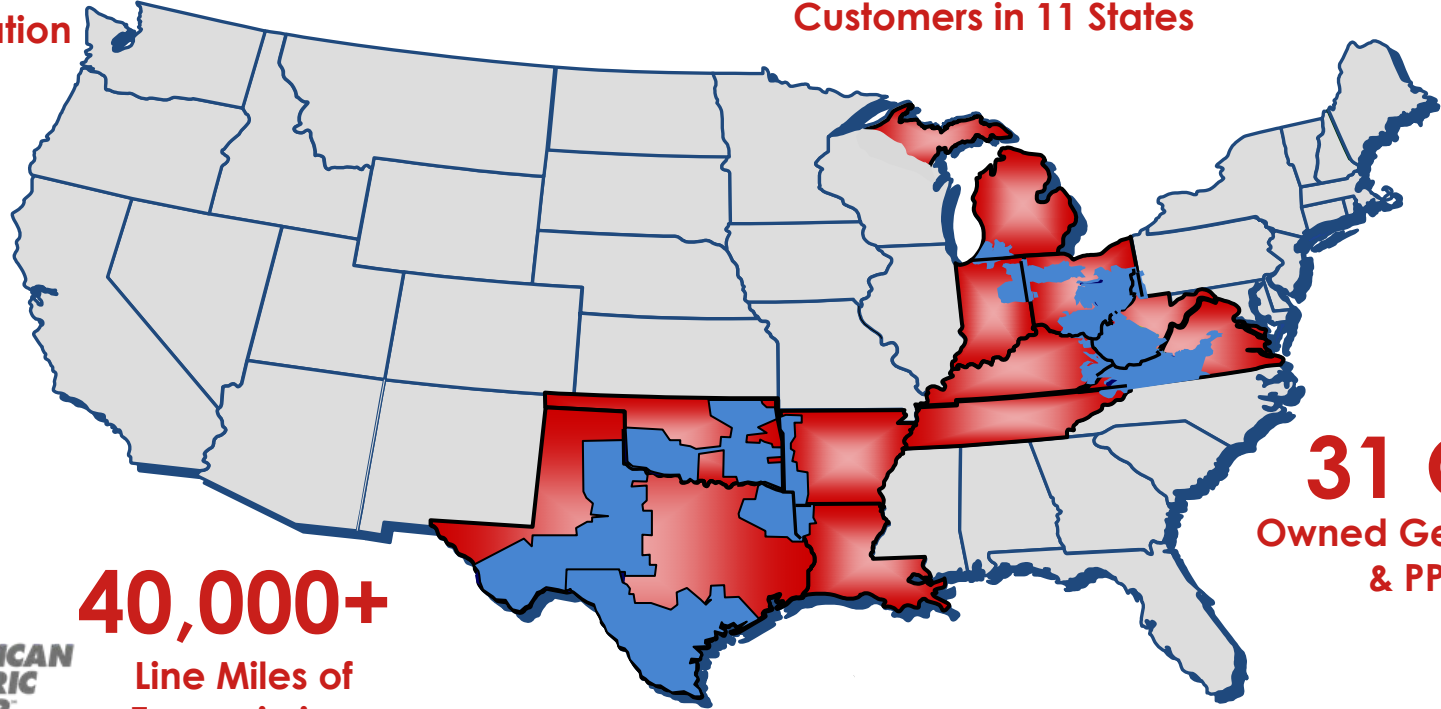
American Electric Power Company Overview

\$31B

Current Market Capitalization

5.4 million

Customers in 11 States



31 GW

Owned Generation & PPAs

40,000+

Line Miles of Transmission



AEP 2016 Integrated Resource Plan

AEP SYSTEM PLANNED GENERATION RESOURCE ADDITIONS

regulated and AEP Ohio Purchase Power Agreement



Source: Current Internal Integrated Resource Plans, which largely do not reflect ITC/PTC extension, bonus depreciation or potential impact of Clean Power Plan. Wind and solar represent nameplate MW capacity

Why Natural Gas Stays in the Mix

- Risk profile advantage relative to other dispatch-able capacity.
- Low emissions
- Efficiency
- Flexibility
- Size, Modularity and Constructability.
- Fuel availability and Cost
- Use Cases and Applications
 - Combined Heat & Power
 - Microgrid applications
 - Grid ancillary services
- New technologies under development – advanced NGCC, natural gas fuel cells, Oxy-gas-fired supercritical CO₂ power cycle (NET Power), etc.



AEP Dresden NGCC



Photo by Wartsila



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